

REMARKS

Claims 13-16 and 18-26 are pending in this application. By this Amendment, new claim 27 has been added, support for which can be found in claim 16. Entry and consideration of this amendment is earnestly requested in that it does not introduce new matter.

Claim Rejections

Rejections Under 35 U.S.C. § 102/103

A. Response to rejection of claims 25 and 26 under 35 U.S.C. §102(b) as being anticipated by Sacchetti et al.

In response to the rejection of claims 25 and 26 under 35 U.S.C. 102(b) as being anticipated by European Patent EP0395083 of Sacchetti et al. ("Sacchetti"), Applicants respectfully submit that the reference does not teach all the elements of the claims.

For a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claims is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

With respect to the current claims, the Examiner contends that:

Sacchetti et al. teach examples of instant claim 25, when in instant claim 25, n is 2 or 3, p is as defined, and LB is EtOH or another alcohol. In instant claim 25, p is a small number, therefore, when n is 2, and LB is EtOH or another alcohol the number of moles of alcohol is essentially 2. (Office Action, page 2)

However, Sacchetti's MgCl_2 /alcohol adducts follow the method of example 2 of U.S. 4,399,054, which recites:

28.4 g of anhydrous MgCl_2 and 49.5 of anhydrous ethanol, 100 ml of Vaseline oil ROL OB/30 and 100 ml of silicone oil (viscosity 350 cs) were

introduced, under an inert atmosphere, into a flask immersed in a heat stabilized bath at 120° C. and under stirring until the $MgCl_2$ was completely dissolved. Thereby there was formed the $MgCl_2$ adduct with ethanol in admixture with the oils. The hot mixture was then transferred, still under an inert atmosphere, to a 1,500 ml vessel provided with a heating jacket, and containing 150 ml of Vaseline oil and 150 ml of silicone oil. This mixture was maintained at 120° C. and kept under stirring by means of a stirrer of the Ultra Turrax T-45 N type produced by Janke & Kunkel K. G. Ika Werke. The mixture was stirred for 3 minutes at 10,000 rpm. Thereupon, the mixture was discharged into a 2 liter vessel containing 1,000 ml of anhydrous n-heptane which was kept under stirring and cooled so that the final temperature did not exceed 0° C. (col. 8, lines 39-57)

Clearly, only Mg and ethanol are present in the adducts of Sacchetti's working examples, i.e., LB is missing.

Indeed, in the Office Action of June 9, 2010, the Examiner acknowledges that the Lewis Base is missing in Sachetti's examples:

Sacchetti et al. teach examples of the instant claims, when in instant claim 26, n is 2, p is 0 and LB is absent. In Sacchetti et al., see Examples 1-6 on pages 9-12. (page 2, emphasis added)

Further, Sacchetti also do not disclose the coefficient "p" for the LB component. Even if Sacchetti disclosed an LB component as in the present claims, which it does not, Sacchetti certainly do not teach a value for "p" within the claimed range. As noted above, the Examiner does not point to a section of Sacchetti that teach any particular value, much less the claimed range of "p"; instead offering only that "p is as defined," without identifying where in Sacchetti that definition can be found. Therefore, Sacchetti clearly do not recite all the limitations of the claims. Reconsideration and withdrawal of the Rejection respectfully is requested.

B. Response to rejection of claims 13-16 and 18-24 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Sacchetti.

In response to the rejection of claims 13-16 and 18-24 under 35 U.S.C. §102(b) as anticipated by or in the alternative, under 35 U.S.C. §103(a) as obvious over Sacchetti, Applicants respectfully submit that the reference does not teach all the elements of the claims as

required under §102, and that a *prima facie* case of Obviousness has not been made out by the Examiner.

The threshold showing required under §102 has been summarized in paragraph A above, and is incorporated in this paragraph.

With respect to a rejection under §103, the U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness. Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. See MPEP §2143. Finally, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. (BNA) 580 (C.C.P.A. 1974).

First, as discussed in paragraph A above, Sacchetti do not teach an LB component as in the present claims. Sacchetti's MgCl_2 /alcohol adducts follow the method of example 2 of U.S. 4,399,054, which do not recite an LB component as in the present claims. Clearly, only ethanol is present in the adducts of Sacchetti's working examples.

Indeed, in the Office Action of June 9, 2010, the Examiner acknowledges that the Lewis Base is missing in Sachetti's examples:

Sacchetti et al. teach examples of the instant claims, when in instant claim 26, n is 2, p is 0 and LB is absent. In Sacchetti et al., see Examples 1-6 on pages 9-12. (page 2, emphasis added)

Moreover, Sacchetti also do not disclose the coefficient "p" for the LB component. Even if Sacchetti disclosed an LB component as in the present claims, which it does not, Sacchetti certainly do not teach a value for "p" within the claimed range. As noted above, the Examiner does not point to a section of Sacchetti that teaches any particular value, much less the claimed range of "p"; instead only offering that, "p is as defined," without identifying where that definition can be found in Sacchetti.

With respect to the claimed fusion enthalpy, Applicants note that comparative example 1 using only EtOH is comparable to the teaching of Sacchetti, and shows that an adduct not containing the LB has a higher fusion enthalpy and generates a catalyst with inferior performances. Moreover, the Examiner argues that this feature is inherent. However, the Office always bears the initial burden to develop reasons supporting a reliance on inherency. (*MPEP* 2112 (IV)). To satisfy this burden, the Office must identify some basis in fact or articulate some reasoning at least tending to show that allegedly inherent subject matter necessarily (i.e., inevitability) flows from cited art. Indeed, the *MPEP* expressly instructs that: "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Further, since a basis in fact and technical reasoning is required when inherency is invoked, a failure to provide such evidence or rationale is fatal to the reliance on this doctrine. This is only logical since evidence "must make clear" that the allegedly inherent subject matter is necessarily present in (i.e., necessarily flows from) the disclosure of cited art. (*MPEP* 2112).

A review of pages 4-5 of the Office Action reveals the absence of the required rationale or evidence at least tending to show that the feature of fusion enthalpy inevitably flows from the disclosures of Sacchetti. Indeed, the Office Action merely asserts that the fusion enthalpy is the same as that claimed because Sacchetti "contains the same components, MgCl_2 and an alcohol, as the invention instantly claimed." (Office Action, pages 4-5). This conclusory statement cannot reasonably be said to be a development of any reason supporting the Office's reliance on inherency. Sacchetti's adducts are different than those claimed, and the Examiner has not pointed out where in Sacchetti the LB component is to be found, or where the claimed coefficient "p" can be located. In fact, as mentioned above, the Examiner has previously acknowledged that in Sacchetti's working examples, p is 0 and LB is absent. Consequently, the Office Action's reliance on inherency is unsupported, and thus improper. Thus, the Office Action concedes that Sacchetti do not teach the claimed feature of fusion enthalpy, and any reliance on the doctrine of inherency to provide this necessary teaching is improper.

In summary, as fully explained above with respect to the rejection under §102, Sacchetti do not teach all the elements of the claims. Specifically, Sacchetti do not teach or disclose the LB component as in the present claims or its coefficient "p".

With respect to the rejection under §103, the Examiner proposes modifying Sacchetti to first incorporate an LB component that is not taught. A coefficient “p” for the LB component is then assumed where there is none disclosed in Sacchetti. Finally a range of “p” is defined in terms of “n,” where such is not disclosed in Sacchetti. Such modifications suggested by the Examiner to arrive at the current claims demonstrate an Obviousness Standard which is clearly not that of the Supreme Court, which requires a:

finite number of identified, predictable solutions *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742 (2007).

Nor does the rationale employed by the Examiner conform to the teaching of the Federal Circuit with regard to a showing of Obviousness, which requires:

a finite (and small in the context of the art) number of options easily traversed to show obviousness.” *Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc.*, 520 F.3d 1358, 1364 (Fed. Cir. 2008).

Reconsideration and withdrawal of the Rejection respectfully is requested.

New claim 27

In addition to all the arguments presented above as to the patentability of the current claims, Applicants respectfully submit that new claim 27 presents features that even more clearly distinguish the claims from the cited references. In particular, claim 27 recites that in the adduct of claim 16, RX_m , is selected from the group consisting of phenol, 4-methyl-1-phenol, 2,6-dimethyl-1-phenol, ethylene glycol, propylene glycol, 1,4-butanediol, glycerine, mannitol, polyvinyl-alcohol, acetonitrile, ethylenediamine, 3-picoline, triethanolamine, triethylamine, and diisopropylamine, i.e., alcohols are not included. Independent consideration of new claim 27 is respectfully requested.

Therefore, Applicants respectfully request that a timely Notice of Allowance be issued in this case. Should the Examiner have questions or comments regarding this application or this Amendment, Applicants’ attorney would welcome the opportunity to discuss the case with the Examiner.


The Commissioner is hereby authorized to charge U.S. PTO Deposit Account 50-4380 in the amount of any fee required for consideration of this Amendment.

Respectfully submitted,



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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No. 571-273-8300) on February 6, 2011.


February 6, 2011
Date of Signature

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